

THE RHODE ISLAND MEDICAL JOURNAL



Owned and Published by the Rhode Island Medical Society. Issued Monthly

VOLUME XVII
No. 2

Whole No. 293 PROVIDENCE, R. I., FEBRUARY, 1934

PER YEAR \$2.00
SINGLE COPY 25 CENTS

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ORIGINAL ARTICLES

ADDRESS BY THE RETIRING PRESIDENT OF THE PROVIDENCE MEDICAL ASSOCIATION

DR. J. W. LEECH

167 ANGELL STREET, PROVIDENCE, R. I.

It has long been my conviction that a retiring president should be so, not only in deed, but also in word. With this thought in mind, while conforming to the requirements of our constitution and by-laws which prescribe an annual address by the President, it is my purpose not to weary you by a long review of the Society's accomplishments or detailed suggestions as to future activities. Whatever these remarks may lack in wisdom or wit will be amply compensated for by the soul of the latter—brevity.

I feel, however, that I should be lacking in graciousness if I failed to take advantage of this opportunity for expressing to you my very real appreciation of the honor you have bestowed upon me in electing me to preside over our sessions for the past year. It has been an honor and a pleasant duty, and I thank you. I wish, also, to express my sincerest appreciation of the support that has been accorded me by every member of the Association during my tenure of office and especially to those members who have so willingly and ably responded to my request to present papers for our mutual enjoyment and advancement.

I am sure that there will be no dissent to the statement that the year 1933 has been the most difficult for our profession since the entire nation entered the valley of economic depression. Greater demands for gratuitous services and failure to receive expected remuneration for our services to private patients, often through no fault or unwillingness on their part, have brought closely home to us all the change in the economic status of the physician. These are tangible results of the painful trials of the nation as they affect us as physicians and are made manifest and can be measured in lowered incomes and the enforced deferment of certain enjoyments of the practice of medicine—new

books, new equipment, advanced study among our fellow physicians away from our own small circle of activity. But what of the intangible changes which impinge on our profession? What are the implications of the increasing proposals pointing to the socialization of the practice of medicine? I refer especially to proposals for health insurance—compulsory or voluntary, with or without state subsidies—to plans for hospitalization insurance, and, perhaps of greatest import, the tremendous possibilities for good and evil of the permissive allocation of public money under the Federal Emergency Relief Administration for the payment for medical services rendered to recipients of public aid through the agency of governmental work projects.

This latter movement is the entering wedge of State medicine. It is not unlikely that measures providing for the payment of medical services adopted for the emergency will be transmuted into a degree of permanency which implies a complete readjustment of the practice of medicine.

What shall be the nature of our reaction to these threatened changes in our status as physicians? Shall we adopt the docile attitude of silent acceptance as in Germany, or shall we pattern our attitude after that of our British brethren, who, in truculent and almost supercilious mood, refused to have anything to do with the government's proposals, only to have crowded down their throats a Lloyd George panel system? Neither of these attitudes are desirable nor defensible. We must recognize that there inevitably will be more rather than less socialization in the practice of medicine and in that realization we should adopt not alone a spirit of co-operation and counsel with the proponents of measures of this nature, but should initiate plans which, while advancing the cause of better medical care for the people and assuring the economic and cultural status of the physician, shall not allow the sacrifice of the high ideals of the medical profession nor the destruction of the inalienable freedom of the individual.

The medical profession in this country, built upon the firm base of county medical society and through the State Medical Society culminating in

the American Medical Association, is the logical leader in any reconstruction or readjustment of medical practice. This leadership derives its force and authority in the last analysis from the co-operative effort of the individual physician with his fellows, and there lies the duty and opportunity of every one of us. Co-operation between the whole medical profession and all the other elements of our social order will without the shadow of a doubt solve the problems which confront us as a profession, even as nation-wide co-operation will surely lead this nation out of the Slough of Despond of the present economic depression.

ABDOMINAL EMERGENCIES IN INFANCY AND CHILDHOOD*

By HENRY W. HUDSON, JR., M.D., F.A.C.S.

66 COMMONWEALTH AVE., BOSTON, MASS.

"The adult may safely be treated as a child, but the converse can lead to disaster," Barrington-Ward¹ wrote in his *Abdominal Surgery of Children*. It has become increasingly apparent that the child cannot wisely be regarded as a miniature adult and that the incidence of disease in this age group and the individual's reaction to his disease differ quantitatively and qualitatively to a degree that warrants special consideration. It occurred to me, therefore, on receipt of your President's kind invitation to address this society, that my own interest in the surgery of this age group might be shared by many of you.

If one surveys the medical statistics from a general hospital for children, one is impressed by the high incidence of non-traumatic abdominal emergencies requiring surgical therapy, and by the percentage stability (over a period of years) of the various lesions which together constitute this group. If it can be shown that this group is statistically important, that its components are amenable to treatment, and that diagnostic inaccuracy is responsible for preventable child deaths, our professional interest is demanded. In Table No. 1 appear the total admissions to the Boston Children's Hos-

pital for a five-year period and the diagnoses which we are to discuss.

TABLE I

CHILDREN'S HOSPITAL, BOSTON, 1928-1932

Admissions, Medical	6,216
Surgical	6,764
Orthopedic	2,946
Otolaryngologic	12,143
	<hr/> 28,069
Appendicitis	717
Congenital hypertrophic pyloric stenosis	181
Congenital intestinal obstruction	60
Intrinsic, small intestine	22
Extrinsic, small intestine	12
Ano-rectal	28
Meckel's Diverticulum	30
Intussusception	90
Peritonitis, metastatic	29
	<hr/> 1,107

It is evident that one of every twenty-five children admitted to the hospital, or one of every six admitted to the general surgical wards, is received because of an acute abdominal emergency. Our discussion will be restricted to the more common lesions although we are not unaware of other abdominal emergencies of relative infrequency.

Appendicitis

Although it is common knowledge that appendicitis occurs in infancy and childhood, its frequency is not generally recognized. This is manifested by the prominent position appendicitis occupies in the tables of the causes of death in this age group, and by the almost universal delay in establishing the diagnosis in the child. In 1932 we called this to the attention of the local profession and desire now to reproduce certain figures from our publication.² It is evident that appendicitis is an important factor in the death rate of childhood. The cause is not difficult to demonstrate. Dr. George D. Cutler³ reported before the New England Pediatric Society his experience in three hundred operations for appendicitis in the Boston Children's Hospital. He considered drainage necessary in 238 or 79.3%! In a personal group of 71 emergency operations studied two years ago, drainage was instituted in 59.1%. Again, in an analysis of two hundred consecutive operations by the staff, we found that at operation abscess or localized peritonitis was present in 31% and diffuse peritonitis in 16%. As we see appendicitis, then, perforation has occurred at the time of admission in well over half. In the last study mentioned the average known duration be-

*Read before the Rhode Island Medical Society, June 1, 1933. From the Surgical Departments of the Boston Children's Hospital and the Harvard Medical School.

I wish to acknowledge the courtesy of Surgery, Gynecology and Obstetrics and of Doctors Lanman and Mahoney for permission to reproduce Table No. 2.

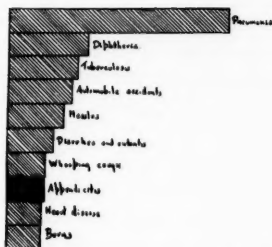


FIGURE 1. Ten most common causes of death. Ages 1-9 years inclusive. Massachusetts 1926-1929.

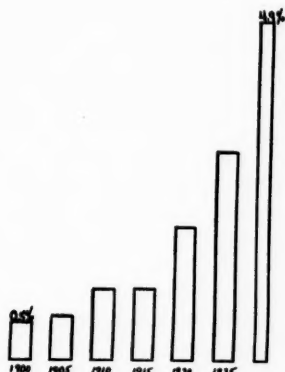


FIGURE 3. Percentage of all deaths due to appendicitis. Ages 1-9 years. Five year periods 1900-1929. Massachusetts.

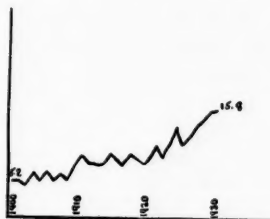


FIGURE 2. Appendicitis. Deaths per 100,000. Ages 1-9 years. Massachusetts 1900-1930.

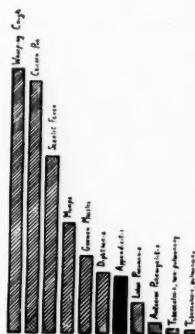


FIGURE 4. Frequency of appendicitis (estimated) compared with certain reportable diseases. Ages 1-9 years inclusive. Massachusetts 1930.

fore admission was 3.2 days for the abscess group and 3.1 days for those with diffuse peritonitis. All of the deaths (63 in 1750 patients or 3.6%) occur in the complicated cases. Since we cannot demonstrate appendicitis to be a preventable disease we are left with the alternative of preventing the death of the child with appendicitis.

Deaths may be prevented by early diagnosis and prompt operation. It is never safe in childhood to delay operation in the hope that the inflammation will subside. The pursuit of an expectant policy may save an occasional laparotomy but will be the cause of more deaths. We can neither confirm nor deny the theory that the younger the individual the weaker the appendiceal structure; nor can we alter its structure. But there is no question that the sequence of inflammatory, or obstructive⁴ and vascular changes may take place with great rapidity. A recent patient may illustrate this point.

M. P. No. 163369, the two-year-old daughter of a physician, awakened at 7:20 A. M. She was irritable when being dressed and, instead of walking downstairs, sat on the floor and cried. When offered breakfast she vomited. At 8:30 her rectal temperature was 99.8. Her father noted local

tenderness and muscle spasm. At 12 N. her appendix had been removed. It was gangrenous, but not perforated, four hours and forty minutes after the first symptom.

Perforation within six to eight hours of onset is not rare.

The diagnosis is best made by considering abdominal pain, nausea and vomiting, with slight fever, as appendicitis until proved otherwise. In our experience there is a complaint of pain in 99.5% (199 or 200). The pain, however, is not necessarily severe and this may be a reason for error. It has been said that "children with pneumonia or other febrile diseases sleep for long stretches but the child with abdominal pain will not sleep or let anyone else sleep." Our experience has differed and it has been no rarity to waken a child for examination and find unmistakable evidence of acute appendicitis. Nausea or vomiting, usually preceding pain, has been present in 92.8%. Local tenderness is of the greatest significance and was noted on abdominal or rectal palpation in 94.4%. Muscle spasm was recorded in 83.4%. To accurately note muscle spasm depends on a patient approach, prolonged examination, and on experi-

ence with the child. The degree of spasm expected of the adult with appendicitis will often indicate peritoneal involvement in the child. Leucocytosis, commonly twelve to twenty thousand, is the rule but one has seen gangrenous appendicitis with a leucocyte count of 8,500. There is usually a polymorphonuclear increase but again one must interpret the differential count in accordance with the age, remembering that there is a relative lymphocytosis until the fourth year. A finger cot for rectal examination is more useful than a blood counting pipette. Fever of 99-101 may be expected but the temperature may be normal, particularly in appendiceal obstruction.⁴ Again, a temperature exceeding 101 should suggest peritoneal complication or a disease other than appendicitis. The pulse rate is commonly elevated and the tongue dry and coated. The sex incidence is not noteworthy.

Prevention of deaths from appendicitis seems possible only by means of education. The public must be informed that to lightly regard persistent "stomach ache" is to court disaster. It should be the duty of the physician not only to familiarize himself with the clinical picture of appendicitis in early life but also to instruct his clientele that abdominal pain is a danger signal to be heeded. Public education can accomplish much as experience in Philadelphia has demonstrated.⁵

We have considered a disease in which prompt diagnosis and immediate operation are the essentials. We now turn to a group of obstructive lesions of the gastrointestinal tract in which time spent in accurate observation and preoperative preparation are of great importance.

Congenital Hypertrophic Pyloric Stenosis

This obstructive lesion is of unknown etiology and, although symptoms may not appear for several weeks, is best considered a congenital anomaly. There is an increase, both in size and number, of pyloric muscle fibers, particularly those circularly arranged, which results in an annular constriction of the lumen of serious degree.

The signs might be anticipated from the character of the lesion and they do, indeed, follow a pattern that might be forecast. The diagnostic criteria are projectile vomiting soon or immediately after feeding, failure to gain or loss in weight, infrequent scanty stools, visible gastric peristalsis passing from left to right (occasionally visibly reversed just before vomiting) and a palpable pylorus which has been likened to an olive. The vomitus does not

contain bile, a feature which serves to differentiate this lesion from certain other types of obstruction encountered beyond the pylorus. The palpable pyloric tumor is pathognomonic and was recognized by one or more examiners in 199 of 200 cases. The sex incidence is striking, 84.7% of 425 cases occurring in males. The onset of symptoms is typically in the third week but there are wide variations. The youngest individual to present symptoms was seven days old. X-ray examination is confirmatory but is seldom employed in our clinic.

One recognizes many causes of vomiting in the newly born and realizes that congenital hypertrophic pyloric stenosis is not a common disease. Some reports dealing with the high percentage of successful non-operative treatment suggest that the cases under observation were not, in fact, congenital hypertrophic pyloric stenosis, as the percentage incidence is out of proportion to observations in this part of the country. The reports by Lanman and Mahoney⁶ and others indicate beyond all reasonable doubt that (1) with careful preoperative preparation with parenteral fluids, (2) the Fredet-Rammstedt pyloromyotomy with meticulous technic, and (3) a simple post-operative feeding schedule, a plan of treatment is available which is far superior to any non-operative method. I reproduce a table by Lanman and Mahoney.⁶

TABLE II

Years	Serial number.	Number of cases.	Deaths.	Mortality per cent.
1915-1923	1-125	125	13	10.4
1923-1928	125-275	150	11	7.0
1928-1931	275-425	150	3	2.0

It is gratifying to report 122 consecutive cases from the Children's Hospital operated on without a death. These are all proven cases and in but one instance has operation been performed when the characteristic lesion was not demonstrated.

The one instance of incorrect preoperative diagnosis in the 122 cases occurred in a patient whose right kidney was mistakenly considered a palpable pylorus. The obstructive lesion she presented was due to congenital atresia of the jejunum, an example of the group of conditions we have next to consider.

Congenital Obstruction of the Small Intestine

This is the title of the paper by Ladd,⁸ based on a series of 60 cases observed in the Boston Children's Hospital. Two types of obstruction are described, intrinsic and extrinsic.

Intrinsic obstruction, complete or incomplete, results from failure of recanalization of the bowel lumen following the normal developmental epithelial proliferation which temporarily converts it to a solid cord.

Extrinsic obstruction occurs as a result of incomplete rotation of the post-arterial segment and faulty mesenteric attachment. This takes place in the third month of fetal life during which the herniated intestine returns to the coelomic cavity.

The presenting signs in those instances of complete obstruction are noted soon after birth. There is persistent projectile vomiting with bile in the vomitus, distension may or may not be present depending on the locus of the obstruction, visible peristalsis, and alteration in the amount and character of the meconium. Since this developmental arrest takes place before the end of the third month, and since meconium does not accumulate until later, it is evident that the meconium will differ from the normal. By means of a special stain, a film of the meconium may be examined and if keratinized epithelial cells are absent (Farber's⁹ test) there is presumptive evidence of atresia at some point in the alimentary tract. If the possibility is borne in mind, the diagnosis is not difficult and examination of the meconium is corroboratory. The preoperative localization of the obstruction is possible with a high degree of accuracy by means of X-ray examination of the abdomen, without ingestion of opaque material. The gas above the obstruction and its absence below are striking.

When obstruction is incomplete, symptoms may be delayed for months to years. Farber's test is not applicable nor is the X-ray method described. However, a barium enema may indicate malposition of the colon, and a gastro-intestinal series may demonstrate incomplete or intermittent intestinal obstruction.

For the relief of intrinsic obstruction various anastomoses may be done with fair promise of success. The collapsed, apparently rudimentary, bowel below the obstruction may dilate surprisingly well after operation.

For extrinsic obstruction due to faulty rotation and abnormal mesenteric attachment Ladd¹⁰ has advised an operation which is effective. It consists in, reduction of volvulus often present because of the rudimentary stalklike mesenteric base, and division of the posterior parietal attachment of the colon and its displacement to the left and away from the underlying obstructed segment of the

bowel. This he considers a restoration to an earlier, but less hazardous embryonal stage.

The colon may be involved in atresia but in our experience less often than the small intestine. Multiple points of interruption in continuity are encountered where the total defect exceeds that compatible with life.

Ano-rectal Anomalies

The distal end of the alimentary canal is not infrequently the site of anomalies including obstruction. Failure of proctodeum and rectal pouch to unite with a continuous lumen occurs and in several different ways. One might anticipate few diagnostic errors but such is not the case. Certain confusing factors may be mentioned.

The anus may be developed and on external inspection appear normal, even though it is not continuous with the rectum. The cloacal duct may persist as a fistula between rectum and bladder, urethra, or vagina. If the source of meconium is not accurately observed diagnosis may be delayed. In one experience, meconium had been noted on the diaper and a normal rectal temperature recorded for six days preceding admission. In this instance there was a normal anus separated from the rectum by several inches and a patent cloacal duct through which meconium entered the bladder to be discharged through the urethra.

Operation is best done through the perineum with care to preserve the sphincter which is usually present. When separation between anus and rectum is extreme, colostomy followed after an interval by perineal operation is indicated. In the preoperative estimation of the degree of separation we have found Wangenstein's¹¹ method valuable. With the infant inverted a marker is placed at the anal site and the distance between it and gas in the blind end of the rectum is estimated by X-ray examination.

Following establishment of continuity, months to years of supervision and dilatation may be necessary.

Meckel's Diverticulum

We have observed a relatively large series of children suffering from the various accidents for which Meckel's Diverticulum may be responsible. Between 1919-1932 (inclusive) 43 cases entered the hospital, 11 in 1932 alone.

This structure described by Ruysch¹² early in the eighteenth century and more thoroughly considered by Meckel¹³ a century later, is a remnant of

the vitello-intestinal duct and occurs in approximately 2% of individuals. It varies markedly in size, shape, position, and histologic structure and is capable of producing several symptom complexes which we have classified as follows.

Meckel's Diverticulum

- A. Gastric type mucosa with ulceration.
 1. Without perforation but with hemorrhage.
 2. With perforation and with or without hemorrhage.
- B. Advancing point and presumable cause of intussusception.
- C. Diverticulitis with acute inflammation and necrosis.
- D. Intestinal obstruction, other than intussusception.
- E. Umbilical fistula.
- F. Enterocystoma.
- H. Duplex ileum.
- I. Mesenteric cyst.
- J. Tuberculosis of Meckel's Diverticulum.

We have not encountered neoplasm, enterocystoma (of this type) or tuberculosis.

Ulceration of Meckel's diverticulum with mucosa similar to that of the stomach. In 67% of the specimens examined microscopically, mucosa identical with that of the stomach was present. It has been shown^{14 15} that a gastric-like secretion may be present. Peptic ulcer may occur and when present is situated in the ileum adjacent to the diverticulum or in a part of the diverticulum presenting mucosa other than gastric. In our cases the ulcers were acute but chronic ulcers have been reported.^{15 16 17 18} Clinically there is a history of chronic interrupted, or acute melena, abdominal discomfort or paroxysmal colicky pain, nausea and vomiting. The blood may be fresh or digested, mixed with or separated from the feces, and the amount may be slight or sufficient to cause death from hemorrhage. The case summary illustrates not only the symptomatology but also the second operation made necessary through failure to recognize the lesion.

S. R. No. 151852, a girl of five years, became ill in May, 1931, with acute abdominal pain and the passage of a large amount of blood by rectum. In a local hospital her appendix was removed. There was said to have been free fluid about the appendix. Two weeks after operation she was discharged and one month later the symptoms returned. She re-entered the same hospital and her symptoms subsided within four days. On August 3, 1931, she again became ill with severe colicky pain just to the right of the umbilicus, vomiting and the passage of considerable amounts of blood with her stools. On admission to the Children's Hospital there was moderate abdominal distension and tenderness to the right of the umbilicus but above and mesial to the appendix scar. A presumptive

diagnosis of Meckel's diverticulum was made and operation performed. Eighteen inches above the ileocecal valve a small, injected diverticulum was demonstrated and resected. Her convalescence was gratifying and she was discharged ten days later. She remained well. Examination of the diverticulum showed acute inflammation and a mucosa similar to that of the stomach.

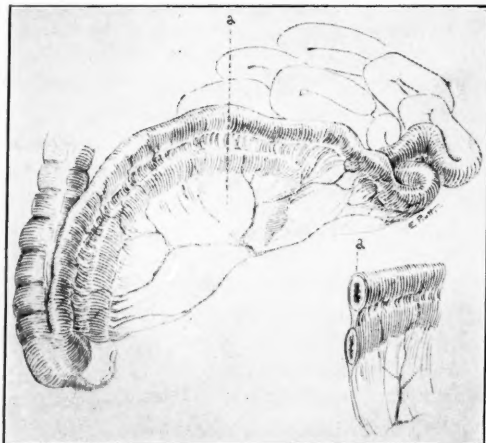
Meckel's Diverticulum as advancing point of Intussusception. There have been fourteen instances. The clinical picture is identical with that of idiopathic intussusception which we will consider.

Diverticulitis. The signs and symptoms are similar to those of appendicitis. Preoperative differentiation may be impossible and is not important if the surgeon *does not fail to examine the ileum* whenever the appendix is not surely the source of the symptoms.

Intestinal Obstruction other than Intussusception occurred in seven of the forty-five cases reported.

Umbilical fistula. It is in this type that the studies demonstrating gastric secretion^{14 15} have been made.

Duplex ileum. The drawing indicates the anomaly.



DRAWING OF DUPLEX ILEUM OR MECKEL'S DIVERTICULUM.

No communication with ileum was demonstrated. Resection of the segment between line *a* and the base of the mesentery relieved hemorrhage from the intestinal tract for eighteen months. Microscopic examination of the resected segment (9.5cm.) demonstrated mucosa of gastric type and mucosa similar to that of the small intestine. An acute ulcer was demonstrated.

The symptoms were severe intestinal hemorrhage at 3 months and again at 6 months of age. A resection of a segment of the duplex ileum or diverticulum was performed in January, 1932. The infant was entirely well in March, 1933.

We are inclined to the view that reduplication of the ileum and certain types of mesenteric cysts are, in fact, incarcerated (within the mesentery) Meckel's diverticula.

Intussusception

Intussusception is the most dramatic and one of the more common abdominal lesions. An analysis of 372 cases from the Boston Children's Hospital has just been completed. From this analysis and other reports, notably the monograph of Clubbe,¹⁹ certain facts are apparent.

The etiology is unknown, although several theories have been advanced. In only 8% of 372 cases were positive etiologic factors noted. They were: Meckel's diverticulum in 14 instances, intracecal polyp in 2, enterocystoma (of cecum) in 1, lymphoma in 1, and in 7 instances intussusception followed a prolonged nutritional disturbance with enteritis.

Characteristically the history obtained is so constant that it has been said that the diagnosis can be made over the telephone. An infant under a year, and commonly about seven months old, suddenly exhibits evidence of acute severe, paroxysmal, and colicky abdominal pain with shock. He cries out in pain, flexes the thighs on the abdomen, becomes pale or cyanotic and may perspire freely. After a variable period, the pain ceases, evidence of shock is no longer present, and the infant may appear very well until the next paroxysm. The paroxysms occur irregularly but with a tendency to greater frequency. Usually, mucus and later mucus and blood are expelled from the rectum. Vomiting occurs, but if not present does not exclude intussusception. On examination there may be evidence of shock and frequently the intussusception is palpable as a sausage-shaped mass somewhere along the course of the colon. If it has advanced sufficiently, the advancing point may be palpated by rectal examination or it may even protrude through the anus.

In instances of difficult diagnosis, X-ray examination with barium enema is valuable.

The sex incidence was male 61%, female 39%.

We are cognizant of non-operative methods of reduction by manipulation and by air or fluid instilled by rectum, but believe firmly that no method offers the same insurance of reduction as laparotomy. Operative results are good. In the 60 cases received within thirty-six hours of onset in the past five years, there were no deaths. Poor results are due to late diagnosis, and there is a striking parallel

between mortality rates and duration of symptoms before operation. The results have improved over a period of years, but the possibilities of improvement are limited until patients are referred earlier.

As in the case of appendicitis, deaths are preventable and responsibility rests directly on the parent who fails to call the physician or on the physician who fails to recognize the emergency.

Peritonitis

Discussion of this condition was contemplated with temerity. It is easier to discuss, however, than to be confronted with a child suffering from peritonitis of this type. Primary, ideopathic, metastatic, are some of the qualifying terms applied to this peritonitis, streptococcal or pneumococcal, which strikes suddenly and very, very often fatally. The pathogenesis has not been demonstrated. The theory of infection ascending through the female genitalia is not adequate since males may be affected, nor is the bacteriologic evidence impressive. Commonly, a history of upper respiratory infection, perhaps of little apparent significance, is obtained. There may be improvement and then, suddenly, the child is prostrated, there is high fever, vomiting, abdominal pain and distension. Prostration and toxicity are extreme and the pulse is rapid and of increasingly poor quality. Vomiting is frequent and exhausting. Bile and intestinal secretions very soon appear in the vomitus. There is diffuse abdominal tenderness and often, except in infants and moribund children, generalized muscle spasm. Shifting dullness may be demonstrated and on auscultation there may be ominous silence.

The abdominal localization arrests the attention, but not infrequently the peritonitis is but one manifestation of a more general infection, septicemia. There may be associated localizations of the infection, as pleuritis, purulent pericarditis, meningitis, osteomyelitis, or suppurative arthritis.

Treatment is difficult to evaluate. One cannot hope to drain the entire peritoneal cavity by means of drains introduced through one or the other quadrant. Nor will such action alter the septicemia or infection localized elsewhere. Two widely divergent views are held. The one embraces early laparotomy with introduction of drains, the other demands a "hands off" policy until and if there is obvious localization and an abscess to drain.

Supportive measures are indicated and this is best afforded by the administration of parenteral

(Continued on page 25)

THE RHODE ISLAND MEDICAL JOURNAL

Owned and Published by the Rhode Island Medical Society
Issued Monthly under the direction of the Publication Committee, 106 Francis Street

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EDITORIALS

THE STUDY OF MEDICAL HISTORY

Medical science advances occasionally by bounds, spurred on by the stimulus of great discoveries, but more often by painful, halting steps through the debris accumulated as the result of past errors. Medical history chronicles the achievements and mistakes of the past. The story of the great medical discoveries is of great interest and its study tends toward intelligent practice of the art. Knowledge of the great errors which have been committed in

the past is of greater practical importance, lessening the chance of their repetition in the future. The system of medicine instituted by Galen, the influence of Avicenna, the operation of the School of Salerno, are at present of only academic interest. The immediate reaction of the profession to the discovery of the contagiousness of puerperal fever, and to the first demonstration of surgical anesthesia shows an aspect of medical psychology which is not subject to rapid change. The history of venesection, the vogue of Perkins' tractors, and the treatment of typhoid fever by ice baths are practical topics for the modern practitioner who wishes to avoid similar errors.

Medical history is taught to a limited extent in the universities; it is studied in some national societies; but its principal field up to the present time is in small, local clubs. These intimate, friendly groups provide an invaluable training ground for the more formal discussions of larger societies. To Providence, already fortunate in the number of such small societies which are actively functioning, we welcome the Providence Medical History Club. May its object, stimulation of medical history in the community, be fully realized.

SKULL FRACTURE

Some time ago, a prosecuting attorney was given evidence, to show that a death had been caused by assault, disclosed by gross discolorations and contusions. After sifting the findings, he declared it would be a hard case in which to obtain a conviction, because the examination had disclosed no broken bones. To the police and judiciary departments, fractures play a role of undue importance, and nowhere is this more noticeable than in fractures of the cranium.

That a fracture of the skull, without injury to the brain, is of very little importance, has been taught in recent years by the use of Roentgen rays, and it is obvious that in the past, skull fractures often existed where they were never expected. It is indeed surprising to find the great number of linear fractures of the cranium, which one discovers, if films are taken in a series of head injuries, in which the evidence of trauma, both clinically and from the history, are not at all alarming. In automobile accidents to pedestrians, skull injury is generally secondary to the impact from the machine, and is caused by the fact that the injured person hits his head on the pavement when he falls. In such cases, the report "fractured skull" carries little or no evidence of recklessness on the part of the operator. His vehicle may have been stopped within the space of a few inches, and the primary injury may show only a contusion of the upper tibia region.

Since the exposure of from three to five films is required for a proper examination of the cranium for fracture, there arises a very pertinent question as to the value of the procedure. Symptoms arise from actual injury to the brain, or from oedema within an inflexible vault, and in by far a great majority of cases, the fracture itself is causing no symptoms whatever, indeed of itself it causes no

distress to the patient. It obviously requires no treatment. In a recent article, Dr. Dandy of Baltimore made this assertion: "A physician is considered negligent if Roentgenograms of the skull are not made, although they are of almost no service in acute injuries of the head; they are a waste of money, a misdirection of diagnostic effort, and only too frequently, if transportation is required, a critical tax on a seriously ill patient."

The expression, "fractured skull," handed down to us from the days when the diagnosis was made by sight and touch only, (and consequently the pathology was so gross as to be of bad prognostic value) must, in view of the present common findings of linear cracks, be shorn of nearly all of its old significance. To those who read many films the term, "fractured skull," is of little significance. A great part of the profession and the public at large, however, still stand in awe of the diagnosis. Particularly is this true of the police. After the examination of the injured person, the inspector listens patiently to the physician's findings: "There is a small contusion below the knee, a high fracture of the fibula, and a linear fracture of the skull. The patient's condition is not serious," but here he is interrupted by a quick question from the officer. "Doctor, did I understand you to say he has a fractured skull?" This question answered in the affirmative, the conversation is terminated by the click of the receiver, and some unfortunate motorist is held for manslaughter. Probably, insignificant as the fractured fibula is, it will cause more distress and need far more care, than the fractured skull. Out of fairness to the policeman, it should be said that if time is taken to explain, he will be found an interested listener.

With a better understanding, both on the part of the profession and the public, of the significance of the term fracture as applied to the skull, there should be a more discriminate use of films, less apprehension concerning a rather common injury and more justice shown toward motorists.

ABDOMINAL EMERGENCIES IN INFANCY AND CHILDHOOD

(Continued from page 23)

fluids (glucose and normal salt solution). Transfusion is of questionable merit. Morphine in large doses is humanitarian and probably effective in splinting the inflamed viscera. Fowler's position

may be useful. An indwelling duodenal catheter (Levine tube) prevents upper abdominal distension, relieves exhausting vomiting, and accomplishes as much as enterostomy for this type of patient.

Results are difficult to interpret because of associated lesions and other variable factors, but the impression is held that supportive measures, together with drainage of abscess, when and if localized, affords the greatest opportunity for recovery.

Summary

One has tried to picture the more common abdominal emergencies of early life; to stress their statistical significance and the importance of early and accurate diagnosis; and to suggest the results possible by surgical methods, effectively organized.

The profession is urged not only to be familiar with the clinical aspects of the abdominal emergencies, but also through education to emphasize to lay persons the importance of vomiting, abdominal pain and melena in early life.

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DIURETICS IN THE TREATMENT OF RENAL AND CARDIAC EDEMA*

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The treatment of the edematous patient is a timely subject for two reasons. First, because everyone in the practice of medicine, whether in the hospital or in the home, is frequently confronted with this therapeutic problem. Secondly, because we find from time to time new measures that improve our treatment of edema and it is well to take stock of them. In this discussion we shall restrict ourselves to a few points regarding the use of diuretic drugs in treating patients with cardiac and renal edema, particularly that of the chronic type. Often this is the least important part of therapy. The classical measures of complete bed rest, of restriction of fluid and salt, and of the proper dietary regime will frequently by themselves prove adequate to rid the body of excess fluid. However, there are, unfortunately, accumulations of edema that are much more satisfactorily treated with diuretic drugs. The questions that perplex one are when to use these drugs wisely and safely and which ones to use. Often such questions can be answered only by trial and retrial.

It is an interesting commentary on the use of diuretics that though they have been employed for

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many years, we are still quite ignorant as to their exact mode of action. The earlier ideas that they either improved the circulation through the kidney or acted as a stimulant to the supposedly secreting epithelium of the kidney tubule have given way to new conceptions. Some now feel that diuretics act primarily on the extra-renal tissues, effecting changes in them which cause the release of stored water. Others maintain that some diuretics act on the kidney glomerulus, causing an increased filtration of fluid from the blood; that such fluid flows rapidly through the kidney tubule without there occurring a normal reabsorption. Still others feel that glomerular filtration remains the same, but that the tubules of the kidney are affected in such a way that they reabsorb less than the usual amount of water and diuresis results. The criticism of all of these explanations is that we have little direct proof as to which one of them, if any, is correct. And though it seems likely, from experiments on the isolated kidney, that most, if not all, diuretic drugs act primarily on the kidney tissues, the final proof is not at hand. The exact mode of their action is not yet clear.

During the past year I and my associates, Drs. Davenport, Parsons and Van Auker, have conducted some experiments along these lines at the Harvard Medical School.^{1,2} We were interested, among other things, to study the comparative effect of the different diuretic drugs when administered to normal dogs at intervals of 5 to 10 days under identical conditions.

A tabulation of our results shows essentially the same thing that is seen in patients, namely, that the mercurial diuretics, salyrgan and novasurol, are much more efficient, as a rule, than the xanthine drugs — caffeine, theobromine and theophylline. Furthermore, that following the preliminary use of one of the acid-forming salts, the effect of the mercurial diuretics is even greater than when these are given alone. Of the acid-forming salts, ammonium chloride is probably the best to use with patients. Ammonium nitrate has been employed by some, notably by Keith et al.³ at the Mayo Clinic, but it carries the danger of reduction of nitrate to nitrite with resulting methemoglobinemia formation,⁴ and it is, by and large, no more effective than ammonium chloride. It has been our experience that 4 to 6 grams of ammonium chloride per day is adequate dosage to produce the desired effect. Larger doses have been suggested but are not necessary. Some patients are unable to take ammonium chloride and

retain it because of an irritating effect on the stomach. In such instances it is well to try changing the form in which the drug is taken, or to disguise its disagreeable salty taste as much as possible in lemon or orange juice. Ammonium chloride is, of itself, a diuretic drug, apparently because the ammonia is converted to urea, releasing excess chloride which disturbs the acid-base balance of the body.⁵ Though the exact mechanism of the diuresis which follows is not clear, it is, in effect, due to the attempt of the organism to re-establish the normal acid-base equilibrium.

Our earlier experience with the mercurial diuretics, salyrgan and novasurol, taught us that toxic effects from mercury, particularly stomatitis, colitis and proctitis, will occasionally occur. This has often deterred doctors from employing these drugs in some instances where diuretics are definitely indicated. As a matter of fact, these toxic effects were much more commonly seen in the early days with novasurol than of late with salyrgan.⁶ In many clinics salyrgan has for this reason entirely replaced its elder brother, novasurol. Experience has shown that salyrgan may be given judiciously in repeated doses over a fairly long period without damaging the kidney and without producing these undesirable toxic effects just mentioned. An important point which should be emphasized is that the effect of salyrgan should not be judged from a single dose. Often, in edematous patients, the trial dose of $\frac{1}{2}$ cc., which should always be administered first to determine any sensitivity to the drug, will have little effect on urine flow. Even if a dose of 1 cc. produces only a slight diuresis, one should persist and give larger doses so long as there is some diuretic response. If there is no response, there should be an interval of several days before the drug is repeated, because the mercury is largely eliminated in the urine, and a small urine flow will prevent the adequate elimination of the mercury. Even if a good diuresis occurs with salyrgan, there should be an interval of 2 or 3 days before the drug is repeated. Such a period allows both for the recovery from fatigue by the kidney and the restoration of such substances as may be excreted in excess during diuresis. If at least 2 days are not allowed to intervene before the injection is repeated, there will be less response to the second injection as well as the added danger of damage to an over-worked kidney. A good working program is to give first $\frac{1}{2}$ cc. and to follow this at 3 or 4 day intervals with doses of 1 to 2 cc. Cases which have shown only moderate

response to 2 cc. have done well with 3 or even 4 cc., though it is seldom necessary to increase the dosage to this extent. The drug can be given either deep into the muscle of the buttock or intravenously. The intramuscular injections are very apt to be painful and if not given deeply enough may result in sloughing. For this reason the intravenous route is the one of preference. Unfortunately, a certain number of patients develop venous thromboses from salyrgan injections, particularly if the vein is traumatized unduly or any of the injection leaks out around the vein. Since successful therapy calls for repeated injections, particular care should be taken to avoid this by very careful technique, by giving the injection slowly, or by sucking back a few cc's. of blood after emptying the syringe and re-emptying the syringe of this blood before extracting the needle. If the salyrgan is diluted to 10 or 15 cc. with normal saline solution, there is less danger of producing thrombosis. Figure I indicates the advan-

ing the first six months on the wards a number of different measures were tried to combat the edema, including three injections of salyrgan, one of $\frac{1}{2}$, one of 1, and one of 2 cc's. There was no diuretic response. It was not until the seventh month of her illness that a fourth injection of salyrgan brought about a diuresis. During the next three months she received over 20 injections of salyrgan with the results which are shown in this chart. There was an excellent diuretic response, with loss of nearly 60 pounds in weight, and almost complete disappearance of the edema. In early November she developed thromboses of the veins so that it was necessary to give the salyrgan intramuscularly, still with good effect. The urine during this time continued to show a trace of albumin, hyaline and granular casts but no new signs of renal impairment.

This patient illustrates that one should not be discouraged by the early unfavorable results of giving salyrgan, or for that matter of any diuretic drug, in instances where these drugs are definitely indicated. By judicious trial and persistence satisfactory results will often be accomplished. One, of course, cannot be too sanguine, for there are some patients who will fail to respond. It is just as poor therapy, however, to fail to be persistent in such instances as it is to give diuretics when they are contra-indicated. In this connection an unusual case report published by Wiseman last year may be cited.⁷ Wiseman tells of a patient with hypertension and chronic myocarditis to whom he gave 270 injections of salyrgan over a period of five years without evidence of damage to the kidney. One should not infer that salyrgan can always be given without producing toxic effects. It is important to be on the watch for early symptoms of mercurial intoxication or for significant changes in the urine and to stop the drug as soon as these appear. Barring such untoward events, a careful program of repeated injections will often be strikingly effective in removing edema.

Another excellent diuretic that has recently undergone a revival in usage is urea. Urea has long been known to act as a good diuretic in certain types of cases. Last year Miller and Feldman published⁸ some very interesting studies on cardiac patients in which they emphasized anew the value of urea in treating patients over a long period of time. They pointed out in this communication first, that the diuretic properties of urea do not weaken over periods of months or even years of continued use; second, that in properly selected cases it has no dele-

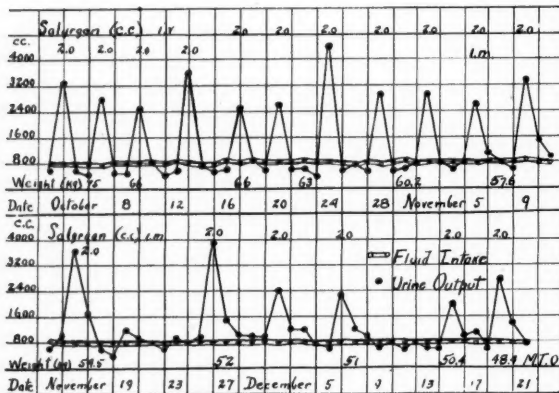


FIGURE I, CASE 1

A continuous chart illustrating the diuresis obtained by repeated injections of salyrgan intravenously (i.v.) and intramuscularly (i.m.) from October 2 to December 21.

tage of persisting in the use of salyrgan. This is a chart from the record of a patient (Case 1) who was admitted to the Peter Bent Brigham Hospital in March, 1932. She was a girl of 17 who gave a history of three weeks duration of swelling of the feet, then of the abdomen, upper extremities and face. Physical examination showed generalized edema with fluid in the abdominal and pleural cavities. The urine, which was very scanty in amount, showed a specific gravity of 1027, a large trace of albumin, and granular and hyaline casts. There was no blood in the sediment. There were a good many features of the so-called nephrosis syndrome. Dur-

terious effect on the patient or his kidneys; and third, that it tends to act as a prophylactic against the recurrence of edema in cardiac patients who have recovered from a bout of congestive heart failure. One of their patients took daily between 30 and 60 grams of urea practically uninterruptedly for over 2 years. To those who can tolerate it—and some cannot because it is upsetting to the stomach—it can be given in coffee, fruit juice or tomato juice in 15 to 30 gram doses two or three times a day. Patients under such a regime should, for a time, be under careful observation, lest there occur an accumulation of nitrogen as shown by the nitrogen level of the blood. In general it is inadvisable to give urea to patients with a fasting blood urea nitrogen of 60 mg.% or over, or to continue using it if the blood urea nitrogen rises to 80 or 100 mg. That such a rule does not always hold is shown by the excellent effects seen in the patient illustrated in Figure II. This patient (Case 2) was fed urea even

low 'phthalein excretion of 15%, secondary anemia and moderate hypertension, he was at first thought to have an acute exacerbation of chronic nephritis. His course is shown in Figure II, which is a continuous chart extending over a period of 3½ months. The circles represent fluid intake, the dots urine output, each dot being the average for a three day period. The x's indicate the blood urea nitrogen as shown by the scale on the right, the figures at the bottom of the chart the weight in kilograms. During the first month—which was the second month of his illness—there was marked improvement in regard to nitrogen retention, but a gain of 11 kg. in weight. On May 10, urea was started, 30 grams twice a day. There followed an excellent diuresis with loss of 11 kg. in weight. The urea was continued until June 10, in spite of a rise of blood urea nitrogen to 118 mg.%. It was then stopped with a resulting prompt fall in urine output and a rise in weight from 70 to 73 kg. Following resumption of urea on June 18, diuresis returned and persisted, the weight was reduced another 14 kg. and the blood urea nitrogen fell to a normal level. During this period of improvement the 'phthalein rose gradually from 15 to 48% and there were other signs of improved kidney function. It was felt from his course that this patient was suffering not from 'chronic but from an initial acute nephritis. He illustrates very well the value of such relatively mild diuretics as urea in this type of renal edema, and the excellent response that sometimes may be obtained from the use of urea. It is known that some patients with renal edema will have a diuresis while taking a high protein diet. One explanation offered for this is that the increased urea formed from the protein exerts a diuretic influence.

There is insufficient time to discuss here the merits of all the diuretic drugs. It is important that the various xanthine compounds—theophylline (theocine), theobromine, and caffeine—be a part of one's therapeutic kit. Often they may be called on with very satisfactory results. Of these three, theocin has in our experience proven most effective. In doses of 5 grains administered three times of a morning, say at 7, 9 and 11 A. M., it will sometimes produce a very marked diuresis in cardiac patients. As with the mercurial drugs, there should follow an interval of several days before it is repeated. It is common experience that one diuretic may be effective when others fail. The best working plan is to find the one that will produce the desired effect in any given case. One can but mention digitalis,

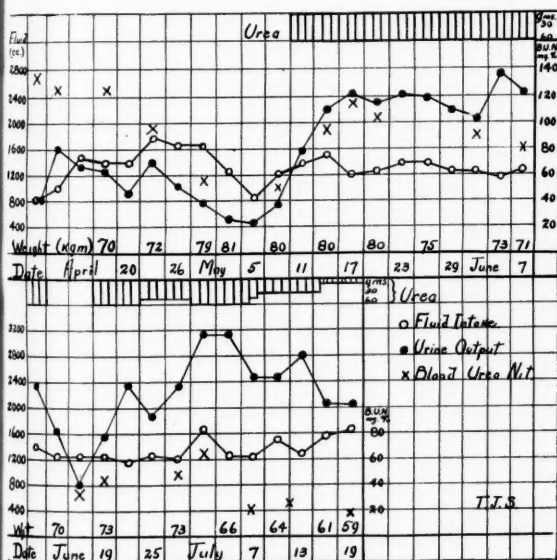


FIGURE II, CASE 2

A continuous chart illustrating the effect of urea given by mouth in doses of 60 to 10 grams per day on the urine output and blood urea nitrogen.

while the blood urea nitrogen was at a level of over 100 mg.%. He was a young man of 29 who came to the Peter Bent Brigham Hospital with the picture of acute nephritis. The urine contained a trace of albumin, had low specific gravity, and contained cellular, granular, and hyaline casts. Because of a

which so frequently brings about a marked diuresis in edematous cardinals. The best evidence goes to show that digitalis acts as a diuretic only in so far as it improves the circulation. Not infrequently the use of Southey tubes in conjunction with diuretics will be found a very helpful means of removing edema fluid.

There is one other measure which may at times prove useful in stubborn cases. It relates to the clinical application of our knowledge that the sodium ion appears to bear some direct relation to the retention of fluid by the body, particularly that fluid stored in the extra-cellular spaces. In contrast to this, potassium, which is the chief basic electrolyte within the body cells, is less readily stored by the organism. When the kidney function is normal, potassium salts have been found to exert a diuretic effect, whereas the corresponding sodium salts, such as sodium chloride, lead to water retention. I was careful to stipulate "when the kidney function is normal," for it is well known that potassium is very toxic to the organism, and if the kidneys are damaged and it is not excreted it may produce death from its toxic effect. However, the potassium salts have been utilized successfully in producing diuresis in some patients who do not have renal damage. Barker⁹ reports excellent results in edematous patients of this type with the use of a salt-free, low-sodium, high-potassium diet. This he supplemented by the daily administration of 5 grams of potassium chloride, which served as the salt for the diet. A number of his patients on this regime had a very good diuresis. The question has been raised as to whether these patients would not have done as well by merely being deprived of sodium, without the addition of potassium chloride. One answer to this is that potassium chloride is more acceptable to some patients as a substance with which to salt their food than is an entirely salt free diet. Figure III is a chart from one patient (Case 3) who has taken potassium chloride now for nearly a year, and who declares it is "the greatest salt that has ever come into" his house. He is a business man, 68 years of age, who was first seen in private practice in January, 1932, with advanced congestive heart failure. He had chronic myocardial disease with marked cardiac enlargement, auricular fibrillation and arterio-sclerosis. There was generalized edema and hydrothorax. He has been selected here to show the effect of potassium chloride as well as the comparative effect in some patients of theocin and salyrgan. Each entry on the chart represents a single day. The

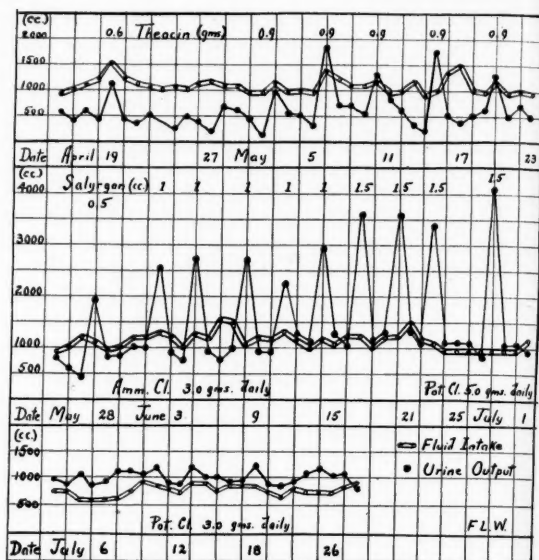


FIGURE III, CASE 3

A continuous chart to show the diuresis resulting from theocin (April 19-May 23), from salyrgan and ammonium chloride (May 27-June 28), and from potassium chloride (June 23-July 28).

observations run from April until July. One sees that during April and May the fluid intake was constantly in excess of the urine output except on the days when the patient responded to theocin with a slight diuresis. At this point salyrgan was first tried with fair results, and thereafter with ammonium chloride and salyrgan in 1 cc. and 1½ cc. doses the patient had excellent diuresis and lost most of his pitting edema. That which remained was of the soft, boggy type in the backs of the thighs. On June 23 a low-sodium, high-potassium diet was started plus 5 grams of potassium chloride a day, and after July 10, 3 grams a day. The interesting feature is that during the hot days of July his urine output was always more than his fluid intake—that is, his fluids in excess of his diet—and this in contrast to the opposite state of affairs seen during April and May, when he was constantly storing water and accumulating edema. He has been up and about ever since August of 1932, able to be out in his car, and has had no return of edema. It is reasonable to feel that in this instance either the reduction in sodium intake or the administration of potassium chloride (which he has continued to take faithfully) has had a very favorable influence on his course. This method of introducing diuresis is relatively new

and calls for further trial before it is well established. It is important to emphasize again the toxicity of potassium, the inadvisability of its use in nephritic cases, and the caution with which it should be used in cardiac patients.

In closing, there are several generalities concerning the use of diuretics which should be mentioned. One should determine as nearly as possible, when dealing with an edematous patient, whether that edema is of cardiac, renal, or of some other origin before using diuretic drugs. The relief of peripheral or body edema is practically never an emergency measure calling for immediate treatment. If the edema is cardiac in origin, several days absolute rest in bed with adequate digitalization will frequently of itself induce diuresis. Patients with cardiac edema are the ones who respond best to diuretic drugs. It is well, however, to wait several days until severe decompensation, as manifested by orthopnea, marked cyanosis, or a very rapid pulse, has abated before giving diuretics to such patients in advanced heart failure. A marked diuresis with the effort of getting on and off the bed pan is very exhausting and may be poorly tolerated by a badly decompensated cardiac; a week later the same performance may take place without undue fatigue. If the edema is of renal origin, much less can be expected of diuretic drugs. Here it is preferable to wait for an even longer time before such drugs are tried. In acute and subacute nephritis with edema, diuretics, except perhaps urea, are contra-indicated. There is no evidence that they aid in the excretion of toxic substances in acute nephritis, and they may throw unnecessary work on a damaged kidney with ill effect. As time passes and other methods of inducing diuresis have failed, small doses of diuretics may be tried in renal cases, but their effects as manifested by changes in the urine must be watched carefully. If renal function is normal as in the first case shown, salyrgan may be given and repeated so long as there is no evidence of the further development of kidney damage.

In summary, diuretic drugs occupy an important place in the treatment of cardiac and renal edema, particularly that of the chronic type. Salyrgan at the present time is our most efficient diuretic drug. It is best given along with one of the acid-forming salts, preferably ammonium chloride, and can be administered repeatedly to cardiac and certain types of nephritic patients so long as there are no untoward toxic or renal effects. Urea also is an excellent diuretic and can be given over long periods

of time. It can be used with good effect in patients with renal edema if there is not marked nitrogen retention. The xanthine drugs, theophylline (theocin), theobromine, and caffeine, still have their place as diuretics and frequently prove effective. A low-sodium, high-potassium diet, supplemented by 3 to 5 grams of potassium chloride daily, may result in an excellent diuresis, particularly in stubborn cases.

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OBITUARY

DR. WILLIAM ROBBINS WHITE

Dr. William Robbins White was born among the green mountains of Vermont at Cavendish, October 31, 1849, the son of Joseph A. White, a merchant, and Ellen (Proctor) White.

His education, after the district school period, was at Black River Academy at Ludlow, Vermont. He entered Dartmouth College with the class of '74 and was both student and, for three years, instructor. He spent two years at Dartmouth Medical College and one year at Harvard Medical School, from which he graduated in June, 1877. The following

September he began an 18 months service at the Rhode Island Hospital as interne and for 55 years he was connected with the hospital, acting as interne, as physician to out-patients, as visiting physician for 27 years, as lecturer to nurses, and finally as consulting physician.

He began practice in Providence in December, 1879, and continued in active work until a few months prior to his death.

He was secretary and president of the Providence Medical Association, secretary and president (1903-04) of the Rhode Island Medical Society, a member of the American Medical Association, of the Harvard Medical Alumni Association, of the American Academy of Medicine, the Providence Clinical Club, and the Providence Medical Association.

For many years he served as a member of the Providence School Committee.

He married, December 10, 1879, Miss Helen G. Farmer of Providence, by whom he had four children, three of whom are still living; she died July 11, 1915. He married as his second wife, Miss Margaret L. Wardle of Troy, N. Y., in August, 1917, who survives him.

Dr. White was a physician of wide experience, beloved by his patients and friends, genial and possessed with a rare sense of humor.

He seldom missed a meeting of this society, and he took an active part in its work.

He died in Providence, R. I., November 3, 1933, aged 84.

Respectfully submitted,

STEPHEN A. WELCH, M.D.,

FRANKLIN P. CAPRON, M.D.

SOCIETIES

RHODE ISLAND MEDICAL SOCIETY

The following letter from the President of the Woonsocket District Medical Society was read by the Secretary. On motion made and seconded it was voted that the communication be referred to the House of Delegates for consideration:

"Woonsocket District Medical Society,
Woonsocket, R. I.

December 7, 1933.

The Rhode Island Medical Society,
Providence, R. I.

Gentlemen:

The Woonsocket District Medical Society desires to acquaint the members of the Rhode Island

Medical Society, as assembled, with a situation which confronts this specific branch of organized medicine in the extreme northern part of Rhode Island.

Of late years there has been an ever increasing alliance of District Nurses with State-hired or institutional physicians in the organization of various self-styled or so called Public Health Clinics, in a community covered by forty or more physicians belonging to, mostly, the Woonsocket District Society, and, in turn, most of them as well to the Rhode Island Medical Society.

The latest acquisition being, in our territory, a so called Mental Hygiene Clinic. These clinics are invariably conducted by local nurses and by physicians who represent various outside state institutions. These physicians enter this territory and ally themselves with District Nurses, who, in turn, usually hold their clinics in rooms hired in a downtown commercial building.

It would appear to this District Society that this insidious scheme of approach by a few aggressive nurses and state medical appointees is a direct and serious challenge to organized medicine's ability to control the health situation of any community. When a very few institutional physicians, or state appointees, whose very salaries are partially met by the taxes of several hundred practicing members of the Rhode Island Medical Society, can enter any community and glibly assume before the public eye and press, along with District Nurses, the self-appointed role of 'public health folks,' they thus infer that the local society and its members have no such talents or ideals. They, thereupon, organize clinics which have no social service supervision for guaranteeing economic justice, alike, to all taxpayers, both patients and physicians. We are of the opinion that organized medicine, as we understand it, can tolerate such conditions only a certain length of time before we become a total farce, as an organization.

Constructively, we advance as a more correct and harmonious procedure, both ethical and courteous, that where there seems a local need throughout the State for special clinics for the public indigent, that the local medical society, or its members, co-operate, not with nurses, or vice versa, but with State institutions for advice, co-operation and consultative opinions. Then to meet in already organized clinics in a legal and properly conducted local hospital, where the indigent may come, as they do for other clinics, and where they may be properly seg-

regated from those able to pay for services rendered. Thus can organized medical men work harmoniously under one roof, using, in addition, nursing and social service care for the general decent welfare of the indigent throughout the State.

We most earnestly ask the members of the State Society, here convened, to give this whole subject its most serious thought, for the benefit of all, since it appears to this local Society, that a serious and insidious challenge by a small handful of our number is being made, to the detriment of the larger group of hundreds of organized physicians throughout the State. It is destructive to medical morale, since a member honorably meeting the dues of organized medicine naturally expects organized courtesy and ethical practices from the fellow physicians *in* this organization. We cannot hope to extend our membership throughout the State, unless such guarantees can be made.

Does not the Rhode Island Medical Society, in its own right, believe the time has long since come to assert some aggression *itself*, in its control over public health matters, embryonic socialized medicine and the practices and activities of its various members themselves?

Very truly yours,

WOONSOCKET DISTRICT MEDICAL SOCIETY,
Walter C. Rocheleau, *President*."

The following program was presented:

1. "Pulmonary Carcinoma"—illustrated by two cases autopsied at the Homeopathic Hospital, lantern slides, Dr. Constant E. Schradieck. Discussion opened by Dr. Burgess.
2. "Discussion of Thyroid Problems," W. Richard Ohler, M.D., Boston City Hospital. Discussion by Drs. Guy Wells, C. O. Cooke, E. Wing, L. I. Kramer.
3. "The 'New School' of Obstetrics," E. S. Brackett, M.D.

Owing to the lateness of the hour, and the fact that a meeting of the American Hospital Association was to be held at Charles V. Chapin Hospital the evening of the meeting, Dr. Hugh Kiene, who had a paper to present, "Medical and Surgical Causes of Mental Disease," suggested that the reading of the paper be deferred until the March meeting.

After adjournment a collation was served.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*.

THE PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the Vice-President, Dr. Charles F. Gormly, Monday evening, December 4, 1933, at 8:50 o'clock. The records of the last meeting were read and approved. Letters were read from Mrs. Parnell Fisher; Dr. Douglas of Tennessee, who had lent money to a man purporting to be a Providence physician; the Rhode Island Philatelic Society reporting a meeting for doctors; and Dr. Richardson, reporting a forum on hospital financing.

Nomination of Officers

In accordance with Article 1, Section 6, of the By-Laws, the Standing Committee make the following nominations for officers and committees for the year 1934.

The Standing Committee having approved their applications, the following were elected to membership: Paul C. Bruno, George A. Elliott, Jarvis D. Case, Wallace Lisbon and Louis A. Sage.

The Secretary read an obituary on Dr. William R. White, and it was voted to spread this on the records, send a copy to the RHODE ISLAND MEDICAL JOURNAL and one to the family. The Vice-President reported for the Emergency Relief Committee. It was voted that the Secretary send the felicitations of the meeting to Dr. Charles H. Leonard, who has his 92nd birthday this month, and wish him many happy returns of the day.

Dr. R. P. Crank reported a case of bacillary dysentery caused by bacillus pyocyaneus and presented the specimen. Dr. Harvey Wellman reported a case of indulant fever. The case was discussed by Dr. Grover.

The first paper of the evening, by Dr. William N. Hughes was on "Treatment of Neuro-Syphilis"—a summary and evaluation of methods used during the past ten years. Methods vary greatly, but there has been a marked improvement in this time. The speaker stressed a careful general examination and the need to consider the patient in all his aspects. The paper was a detailed discussion of the different agencies, as sulpharsphenamine, bismuth, iodine, tryparsamid, and malaria and other fever treatments. The procedures should be extended over a four-year period. Discussion was by Drs. McDonald, Kiene, Messenger, Muncy and Hughes.

The second paper, by Dr. Paul Appleton, was on "Interesting Congenital Deformities." These are

surprisingly large in number, gross deformities averaging about 1 in 50. Some are due to injuries in utero, as the cutting of limbs by the cord, etc., but probably most start at a very early period before the embryo is well differentiated. They usually come as a surprise, although diagnosis, as by X-ray, may sometimes be made and may help in the handling of the case. Moving pictures were shown of a number of deformities. Discussion was by Drs. J. Kelley, Partridge and Buxton.

The meeting adjourned at 10:45 P. M. Attendance 100.

Collation followed.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

ANNUAL REPORT OF SECRETARY

The Providence Medical Association held nine meetings during the year 1933, with a total attendance of 1,114, which is 51 more than last year. For several years now the attendance has been steadily increasing. The most fully attended meeting was in April, when the Diabetic Clinic held a symposium. It is of interest here to note that none of the speakers took over fifteen minutes, and previous experience had led us all to have confidence that this group would give us short and snappy papers. It is to be presumed that members come to these meetings having already done a day's work and are feeling somewhat jaded. A writer cannot be expected to exhaust an important subject even in forty minutes, and he is not well advised to exhaust his audience. All the presidents realize this and try for short papers, but without ironclad rules it is difficult to hold enthusiastic authors down. Good meetings will be better if they can be shortened.

The membership at the present time is 472.

Eighteen papers were read by members and 3 by guests; 6 cases were presented by members and 1 by a guest; 65 members and 3 guests engaged in the discussions.

The following were elected to membership: Ira C. Nichols, Gustave Pozzi, Arthur L. Springer, Nathan S. Rakatanski, Harrison F. Hyer, Russell R. Hunt, John A. Hayward, William M. Muncy, Mark Rittner, Harold Rogell, Anthony A. Iavazzo, John F. Streker, Edmund A. Sayer, Joseph E. Wittig, E. Joseph Bernasconi, George F. Conde, John H. O'Brien, Nicholas A. Pournaras, Jacob P.

Warren, George W. Webster, Ernest J. Quesnel, Casimir J. Miga, Amedeo N. Mastrabuono, Arthur E. Hardy, Charles P. Earley, Edna C. Dyar, John J. Donnelly, Paul C. Bruno, George A. Elliott, Jarvis D. Case, Wallace Lisbon, Louis A. Sage.

Edward A. Coppola was dropped for non-payment of dues.

The Association has lost this year by death: Cornelius J. Mahoney, Gordon R. Barden, Henry A. Cooke, Frederick P. Gorham, Parnell E. Fisher, Winthrop A. Risk, William R. White, T. Edward Duffee.

PETER PINEO CHASE,
Secretary.

LIBRARY NOTES

The Library Committee acknowledges with thanks an additional contribution of \$12.50 from Dr. Harry L. Barnes of Wallum Lake. A good start has been made on the cataloguing of the Library, most of the books kept in the reading room having been classified and catalogued, so that they are now easily available. This classification has made necessary a rearrangement of the shelves, and this has been accomplished with the co-operation of the treasurer.

BOOK REVIEW

SENILE CATARACT: Methods of Operating. By W. A. Fisher, M.D. 267 pages, 183 illustrations. Published by Chicago Eye, Ear, Nose and Throat College, Chicago, Illinois.

In this volume several well-known ophthalmologists describe their methods of cataract extraction. The late Dr. E. Fuchs summarizes the application of surgical judgment and briefly describes his capsulotomy operation.

The rest of the work concerns itself almost entirely with intracapsular extraction. Barraquer's lengthy description of his method, 100 pages, is excellent and thorough. The Smith operation, as modified by Holland and by Fisher, is well described. Very little, indeed, is said of the several methods of extraction by forceps. The principal author stresses particularly his own modification of the suction technique and practice operating on the eyes of kittens.

The book is of value as a ready reference for points of technique in several methods of cataract operation.